

# Richmond® Encore®

## Super High Efficiency Gas Water Heater



**Richmond**<sup>®</sup>  
The Water Heater Experts™

# Maximum Efficiency

## Powerful Performance

The Richmond® *Encore*® Super High Efficiency Gas Water Heater was designed by plumbers and perfected by Richmond engineering to give homeowners continuous hot water, MaxMode™ and smart features—all from a water heater that installs as easily as a standard product.

Not only did we make it easy to install and service, but we also made it powerful, smart and dependable. So when you're looking for a gas water heater for your homeowners, why look for the best when you can install the greatest?

### SMART CONTROL

#### Built-in EcoNet® Wi-Fi Technology

Allow your homeowners to control and optimize their water heater experience from their phone<sup>3</sup>

### SMART PROTECTION

#### LeakSense™ Leak Detection System

Detects any water leak—large or small, internal or external<sup>6</sup>



### MAXIMUM EFFICIENCY

#### Up to 0.90 UEF

Reduces energy usage and carbon footprint by up to 36%<sup>1</sup> while still heating water 2X faster than a standard gas tank<sup>2</sup>  
ENERGY STAR® certified

### POWERFUL PERFORMANCE

#### Fast Recovery

Provides 2.5X the hot water of a standard 50-gallon water heater,<sup>4</sup> enough for up to seven simultaneous showers<sup>5</sup>



**"Tank-type water heaters . . . best in class first hour delivery."**

**Steve,**  
Plumber

## Easy to Sell. Easy to Install. Easy to Service.

Richmond® *Encore*® Super High Efficiency Gas Water Heater is what you've been waiting for. Now you can give more homeowners the continuous hot water they want without the costs typically required, from a tank that installs no different than the many you've installed before. Because *Encore*® Super High Efficiency Gas Water Heater was designed by plumbers and perfected by Richmond engineering, it's a win-win solution that makes you come out looking like a hero.



### Advanced Diagnostics

View detailed diagnostics, alerts and alarm codes while at the water heater to expedite service.



### Start Up Verification

Be 100% sure your customer is up and running before you leave the job to prevent callbacks.



### Leak Sensor Channel

Leak sensor replacement is easy by opening the thermostat panel and snaking the new leak sensor down the channel—360° protection, all from the front of the tank.



### Perfect for Replacement

Easy replacement with the same dimensions as a standard gas water heater.



### 0" Clearance on Sides

Fits in a closet and is fully serviceable from the front.



### Contact Info in the App

If anything ever goes wrong, your contact info in the EcoNet® App gives homeowners an easy way to reach and share codes with you for repeat business and simpler service calls.

# Maximum Efficiency

As the most efficient water heater in its class, *Encore*® Super High Efficiency Gas Water Heater is ENERGY STAR® certified and helps deliver up to \$1,100+ in energy cost savings over 12 years.<sup>7</sup> And it may save even more with available tax credits or local utility rebates.

## Earth-Friendly Design

*Encore*® Super High Efficiency Gas Water Heater was designed with a powerful, efficient burner that helps it outperform, so there's no need to choose between sustainability goals and enjoying hot water. It helps homeowners reduce their carbon footprint and energy use by up to 36%<sup>1</sup> and up to a 75% reduction in NOx emissions.<sup>8</sup>

## Save Water with Recirculation

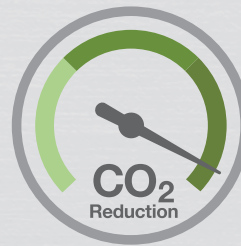
Pair with a recirculation pump (sold separately) to save over 3,000 gallons of water from being wasted down the drain each year.<sup>9</sup>

## Space Heating Ready

Side connections built-in so it can be used with a hydronic air handler for space heating—no need for a second tank or a furnace.



*This product meets a stringent set of our internally defined sustainability standards*



**This Product Demonstrates a BRAND BEST Level of CO<sub>2</sub> Reduction\***

*\*As compared to our baseline product*



# Powerful Performance

With an efficient yet powerful burner, a 50-gallon *Encore*® Super High Efficiency Gas Water Heater produces up to 2.5X the hot water of a standard tank. So homeowners will never worry about running out of hot water while they do the dishes, wash the laundry or even run continuous back-to-back showers.

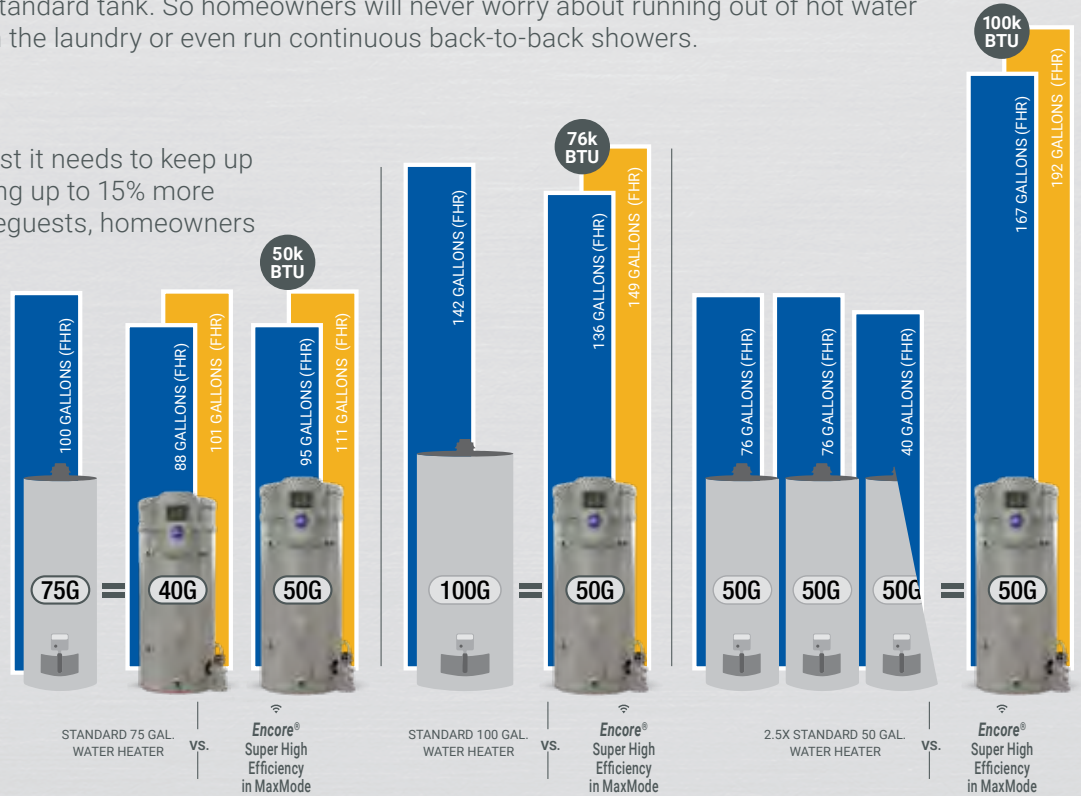
## MaxMode™

Gives the water heater the boost it needs to keep up when demand is high, producing up to 15% more hot water.<sup>10</sup> So even with houseguests, homeowners are covered.



### Hot Water Performance

- STANDARD FHR
- MAXMODE FHR



### First Hour Rating (FHR):

Gallons of hot water produced per hour, starting with a full tank.

## Fast Recovery

Replenishes hot water up to 2X faster than a standard gas tank to provide continuous hot water, up to 3.8 Gallons Per Minute,<sup>11</sup> so you can take as many showers back-to-back as you need. With the tank capacity added to the fast recovery, *Encore*® Super High Efficiency Gas Water Heater is capable of providing hot water for up to seven simultaneous showers.

### Continuous Hot Water Volume

Models:	Inlet Temperature 45°	Inlet Temperature 58°	Inlet Temperature 70°
40G-50K	1 Shower	1 Shower	1 Shower
50G-50K	1 Shower	1 Shower	1 Shower
50G-76K	1 Shower	2 Showers	2 Showers
50G-100K	2 Showers	2 Showers	2 Showers

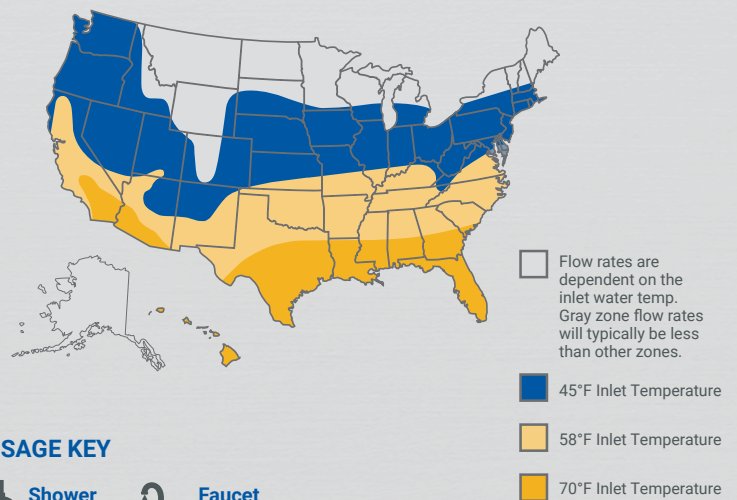
Total simultaneous hot water flow for a continuous duration.

### Maximum Simultaneous Hot Water Volume

Models:	Inlet Temperature 45°	Inlet Temperature 58°	Inlet Temperature 70°
40G-50K	2 Showers, 1 Faucet	2 Showers, 1 Faucet	2 Showers, 1 Faucet
50G-50K	2 Showers, 1 Faucet	2 Showers, 1 Faucet	2 Showers, 1 Faucet
50G-76K	3 Showers, 1 Faucet	2 Showers, 1 Faucet	2 Showers, 1 Faucet
50G-100K	3 Showers, 1 Faucet	2 Showers, 1 Faucet	2 Showers, 1 Faucet

**TOTAL # OF SHOWERS | 140°F SET-POINT | 2 GPM SHOWER**

Total simultaneous hot water flow for an 8-minute duration.



Flow rates are dependent on the inlet water temp. Gray zone flow rates will typically be less than other zones.

- 45°F Inlet Temperature
- 58°F Inlet Temperature
- 70°F Inlet Temperature

### USAGE KEY

- Shower: Flow rate of 2.0 GPM
- Faucet: Flow rate of 1.0 GPM

### Inlet Temperature:

The temperature of cold water before it enters your water heater.

### Approximate Usage:

Shower temperature of 105°F. Flow rates vary depending on temperature of incoming cold water and water heater set temperature.

# Smart Control

## Wi-Fi Monitoring

With integrated Wi-Fi and the EcoNet® App, homeowners can enjoy complete control—like adjusting water temperature and setting Vacation / Away or MaxMode™—and know when their water heater needs service. It's all possible with the Richmond® Encore® Super High Efficiency Gas Water Heater.

## Hot Water Availability Indicator

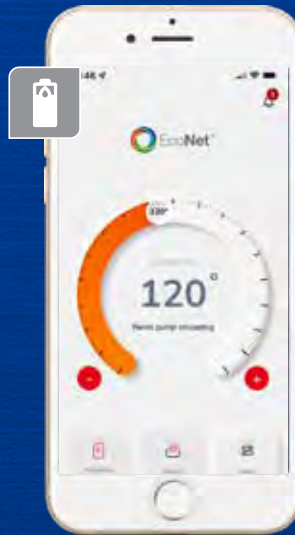
This lets homeowners know how much hot water is available before jumping into the shower.

## Scheduling

Homeowners can program the water heater to match household needs throughout the day.

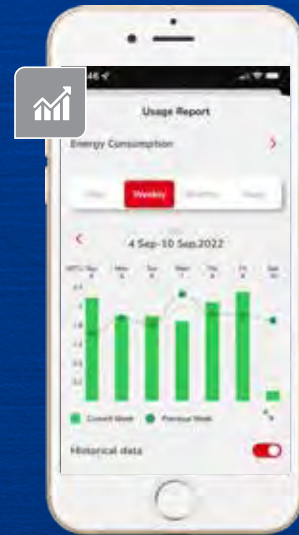
## Mobile Alerts

Encore® Super High Efficiency Gas Water Heater notifies the homeowner immediately of leaks and service needs through the EcoNet App.



## Total Control

The EcoNet App allows homeowners to check hot water availability, adjust the temperature or turn on a recirculation pump accessory.



## Energy Usage Tracking

The homeowner can view weekly, monthly and yearly energy usage reports to better manage consumption.



**NOTE:** EcoNet App subject to change without notice.

# Smart Protection

## Leak Detection

Encore® Super High Efficiency Gas Water Heater was designed with homeowner comfort and safety in mind. It features LeakSense™ leak detection system that detects any leak—large or small, internal or external—in less than 15 seconds<sup>6</sup> and alerts the homeowner through the EcoNet App and on-unit display.

## Add Leak Prevention

When you add a LeakGuard™ Auto Water Shut-off Valve Kit (Part SP21172), Encore® Super High Efficiency Gas Water Heater can stop leaks before they become a problem. LeakGuard protects your homeowners' belongings by limiting leaks to no more than 20 ounces.<sup>12</sup>

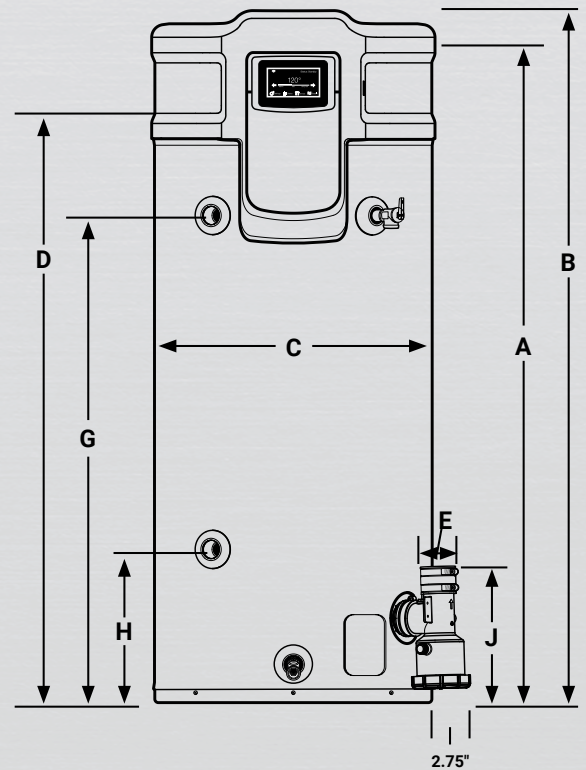


# Built to be better for the Homeowner—and You



# Encore® Specifications

DESCRIPTION				FEATURES								ROUGHING IN DIMENSIONS (SHOWN IN INCHES)										ENERGY INFO.	
TYPE	NOMINAL GALLON CAP.	RATED GALLON CAP.	MODEL NUMBER	GAS INPUT IN THOUS. BTU/H		RECOVERY IN G.P.H. 90° F RISE		FIRST HR. RATING (GALLONS)		MAXMODE™ DELIVERY (GALLONS)		HEIGHT TO INTAKE A	OVERALL UNIT HEIGHT B	DIAM. C	HT. TO GAS CONN. D	VENT SIZE E	WATER CONN. CENTER F	HT. TO SIDE TAP HOT G	HT. TO SIDE TAP COLD H	HT. TO EXHAUST J	WATER CONN. SIZE	SHIP WT. (LBS)	UNIFORM ENERGY FACTOR (UEF)
				NAT.	LP	NAT.	LP	NAT.	LP	NAT.	LP												
Tall	40	40	12GUH40-50FN	50	-	64	-	88	-	101	-	54-1/4	54-1/2	21-3/4	50-1/4	2", 3", 4", 2" or 3" Flex	8	38	12	10	3/4	221	0.90
Tall	40	40	12GUH40-50FP (H)	-	50	-	64	-	88	-	101	54-1/4	54-1/2	21-3/4	50-1/4	2", 3", 4", 2" or 3" Flex	8	38	12	10	3/4	221	0.90
Tall	50	50	12GUH50-50FN	50	-	64	-	95	-	109	-	64-1/4	65-1/2	21-3/4	61	2", 3", 4", 2" or 3" Flex	8	48	12	10	3/4	247	0.88
Tall	50	50	12GUH50-50FP (H)	-	50	-	64	-	95	-	109	64-1/4	65-1/2	21-3/4	61	2", 3", 4", 2" or 3" Flex	8	48	12	10	3/4	247	0.88
Tall	50	50	12GUH50-75FN	76	-	97	-	136	-	156	-	64-1/4	65-1/2	21-3/4	61	2", 3", 4", 2" or 3" Flex	8	48	12	10	3/4	256	0.89
Tall	50	50	12GUH50-75FP	-	76	-	97	-	136	-	156	64-1/4	65-1/2	21-3/4	61	2", 3", 4", 2" or 3" Flex	8	48	12	10	3/4	256	0.89
Tall	50	50	12GUH50-100FN	100	-	128	-	167	-	192	-	64-1/4	65-1/2	21-3/4	61	2", 3", 4", 2" or 3" Flex	8	48	12	10	3/4	256	0.89
Tall	50	50	12GUH50-100FP	-	100	-	128	-	167	-	192	64-1/4	65-1/2	21-3/4	61	2", 3", 4", 2" or 3" Flex	8	48	12	10	3/4	256	0.89



## CONTACT US

**Customer Service, Warranty and Parts:** 800.621.5622

**Technical Service:** 800.HEATER3 (800.432.8373)

**EcoNet® Support:** 800.255.2388

**Plumber Support Group:** 866.339.2388

## LEARN MORE

[Richmondwaterheaters.com/SHEG](http://Richmondwaterheaters.com/SHEG)

<sup>1</sup>Comparison of a 40 and 50-gallon Super High Efficiency Gas(SHEG) to a standard atmospheric gas tank of like capacity with minimum efficiency. <sup>2</sup>Recovery comparison of SHEG to atmospheric and PV/conventional vent gas tanks. <sup>3</sup>Wi-Fi broadband connection and EcoNet App required; connection between water heater and app are dependent on external factors beyond Richmond's control. <sup>4</sup>Comparison of the First Hour Rating of a 50-gallon Richmond SHEG to first hour rating of a standard 50-gallon gas water heater. <sup>5</sup>Based on 2 GPM shower flow of hot water at 70°F inlet water temperature and 140° F tank water set point temperature. <sup>6</sup>Water leaks from the heater only, as tested across scenarios including a minimum of 5.5mL/hr volume leak rate, using most common installation scenarios. Time starts when leak begins and ends when sensor alarm is triggered. <sup>7</sup>Based on AOC (annual operating cost) comparison of 40 and 50-gallon Richmond SHEG water heaters to standard gas water heaters of like capacity with minimum efficiency. <sup>8</sup>Comparison of SHEG to a standard atmospheric gas water heater, not to exceed 75,000 BTUs. <sup>9</sup>Applies to models with a recirculation pump installed only. Recirculation pump sold separately. Claim based on recirculation pump that runs 24/7 with no controls or smart features, for a period of one year. <sup>10</sup>Comparison of SHEG's first hour rating in normal mode to SHEG's first hour rating in MaxMode™. <sup>11</sup>GPM varies by model and inlet water and tank water set point temperature. <sup>12</sup>Applies to models with auto shut-off valve installed only. Testing under a vacuum lock using 50-gallon tank, no expansion tank, average tank pressure of 40 psi, assuming no additional faucets are opened.